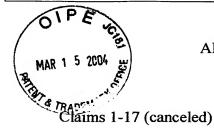
TITLE OF THE INVENTION:

VEHICLE SUSPENSION SYSTEM, PARTICULARLY FOR ROAD AND OFF ROAD VEHICLES FIRST NAMED INVENTOR:

WIESLAW JULIAN OLEDZKI

APPLICATION NO.

10/019,083



AMENDMENTS TO THE CLAIMS



Claims 18, 19 (withdrawn)

Claim 20. A vehicle suspension system comprising a spring and at least one four-link mechanism, at least three of the links are rotationally coupled links which are able to move with respect to the reminder of the four-link mechanism, wherein a first one of said links of said mechanism is coupled with a vehicle wheel, a second one of said links is coupled with a spring, and the entire four-link mechanism is fastened to a vehicle frame through a third one of said links of said mechanism, to obtain non-linear deformation of the spring with vertical movement of the wheel, wherein three of said links are eccentric in form, whereby one of said links of said four-link mechanism is a shaft with an eccentric form, the eccentric form being coupled rotationally with a fourth link of said four-link mechanism, which is an intermediate eccentric link, the latter being coupled rotationally with the second one of said links, which is a disc, wherein said shaft and the disc pivot within the body of the third one of said links of said four-link mechanism.

Claim 21. A vehicle suspension according to claim 20, characterized in that the axes of rotation of all the rotationally coupled links are parallel to each other.

Claim 22. A vehicle suspension according to claim 20, characterized in that the axes of rotation of all the rotationally coupled links of the suspension mechanism intersect at precisely one point P, to obtain a required position of the spring relative to the vehicle wheel.

Claim 23. A vehicle suspension system according to claim 21 or claim 22, characterized by said body of said third link being fastened to the vehicle frame and said shaft being rigidly coupled with a wheel arm and wherein the disc is coupled to one end of the spring and the other end of the spring is fixed to the body of a link of a second four-link mechanism or fixed directly to the vehicle frame.

Claim 24. A vehicle suspension system according to claim 21 or claim 22, characterized by said body of said third link being fastened to the vehicle frame and said disc being rigidly coupled with a wheel arm and said shaft being coupled to one end of the spring and the other end of the spring is fixed to the body of a link of a second four-link mechanism or fixed directly to the vehicle frame.

Claim 25. A vehicle suspension system according to claim 21, characterized by said shaft (W) having a flange and the shaft is fastened to the vehicle frame at the flange, said intermediate eccentric link being coupled rigidly with a vehicle wheel arm, and said body of the third one of the links being coupled rigidly with one end of the spring, and the other end of the spring is coupled rigidly with the vehicle wheel arm or fixed to the shaft of a second four-link mechanism or directly to the vehicle frame.

TITLE OF THE INVENTION:

VEHICLE SUSPENSION SYSTEM,
PARTICULARLY FOR ROAD AND OFF
ROAD VEHICLES

FIRST NAMED INVENTOR:

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Claim 26. A vehicle suspension system according to claim 21 or claim 22, characterized by said disc (D) having a flange and the disc is fastened to the vehicle frame at the flange, said shaft being coupled rigidly with a vehicle wheel arm, and said body of the third one of the links being coupled rigidly with one end of the spring, and the other end of the spring is coupled rigidly with the vehicle wheel arm or fixed to the disc of a second four-link mechanism or directly to the vehicle frame.

Claim 27. A vehicle suspension system according to claim 21 or claim 22, characterized by the body of the third one of said links being fastened to the vehicle frame, said shaft being coupled rigidly with a vehicle wheel arm, and the intermediate eccentric link being coupled with one end of the spring, and the spring being a U-shaped torsion bar, with the other end of the spring fixed to the intermediate eccentric of a second four-link mechanism which is a part of a suspension arrangement of a second wheel.